

REMARKS/ARGUMENTS

Upon entry of the present amendment, paragraphs 00018 and 00019 of the specification, claims 1, 5-11, and 13-19, and Fig. 1 will have been amended. No new matter has been added to the instant application by the amendments herein. Reconsideration of the Office Action of March 13, 2003 is respectfully requested.

Objections to the Drawings, Specification and Claims

The Examiner objected to Fig. 1 as failing to comply with 37 CFR 1.84(p)(5). The Examiner further noted that there are two blocks labeled “1st IF Amp 132.” Applicants have attached hereto an amended Fig. 1 addressing the issues raised by the Examiner. In particular, reference numerals 100 and 120 have been added. The two blocks labeled “1st IF Amp 132” have been changed to “IF Amp 132.” The specification at paragraph 00018 has been amended to reflect this correction to Fig. 1. The Examiner is respectfully requested to reconsider and withdraw the objection to Fig. 1.

The Examiner objected to the specification because of an informality in paragraph 19. Applicants have amended this section to correct the same. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the objection to the specification.

The Examiner objected to claims 1-20 because of informalities. Applicants have amended claim 1 and 13 in accordance with the Examiner’s suggestions to correct the same. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the objection to claims 1-20.

Rejections under 35 U.S.C. § 112

The Examiner rejected claims 5 and 14 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification. As originally filed,

claim 5 recited “wherein the number of bytes that comprises each group of data bytes is such that a receiver can receive the entire data message when at least one of the data channels is blocked by interference.” Claim 14 was similar in its recitation. Indeed, Applicants’ invention does insure that the receiver will receive the entire data message when at least one of the data channels is blocked. However, the Examiner’s example of four corrupted channels is an extreme case where most of the data channels are blocked. While such an example of channel corruption meets the limitation “at least one” is beyond the spirit of claims 5 and 14. Nonetheless, Applicants have amended claims 5 and 14 to recite “when one of the data channels is blocked.” Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 5 and 14 under 35 U.S.C. § 112, first paragraph.

The Examiner rejected claims 6-11 and 15-19 under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner asserted that limitations in claims 6 and 15 lack a proper antecedent basis. The Examiner also asserted that in claims 7-11 and 16-19, “the first preamble” and “the second preamble” should be changed to “the preamble” and “the redundant preamble.” Applicants have amended claims 6-11 and 15-19 as suggested by the Examiner. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 6-11 and 15-19 under 35 U.S.C. § 112, second paragraph.

The Examiner rejected claim 13 under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner asserted that a limitation in claim 13 lacks a proper antecedent basis. Applicants have amended claim 13 to overcome this rejection. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claim 13 under 35 U.S.C. § 112, second paragraph.

Rejections under 35 U.S.C. § 103

The Examiner rejected claims 1, 2, 4, 6-8, 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Eder (U.S. Patent No. 5,311,542) in view of Agee (U.S. Patent No. 6,128,276). The Examiner asserted that Eder teaches a frequency hopping spread spectrum system where messages are broken into 20-bit segments that are transmitted over a different carrier signals. The Examiner admitted that Eder fails to teach that the preamble and/or data message are transmitted a predetermined number of times. Regarding this deficiency, the Examiner asserted that Agee teaches supplying the receiver with several duplicates of the original signal. The Examiner concluded it would have been obvious to one of ordinary skill in the art to transmit several duplicates of the preamble and/or the data message in the frequency hopping system of Eder as taught by Agee. Applicants respectfully traverse.

As noted by the Examiner, Eder teaches a spread spectrum combination system, but does not teach or suggest communicating the preamble and/or groups of data bytes the each comprise a subset of the data message over a predetermined sequence of data channels, as recited in the claims. Contrary to the Examiner's assertion, Agee fails to remedy the deficiency of Eder. In particular, Agee teaches “[s]upplying the receiver with several duplicates of the *original signal...*” col. 1, lines 24-25 (emphasis added). Agee further indicates “[i]n time diversity, the *same information* is transmitted over different time slots.” col. 1, lines 33-34 (emphasis added).

Applicants' invention, as recited in the claims, is directed to communicating groups of data bytes that each comprises a subset of the data message over the predetermined sequence of data channels. The groups of data bytes are broadcast a predetermined number of times. Nowhere does Agee teach or suggest communicating groups of data bytes that each comprise

a subset of the data message. As such, Agee necessarily fails to teach transmitting the groups of data bytes a predetermined number of times.

Applicants' invention does not supply the receiver with several duplicates of the *original signal*, nor is the *same information* transmitted over different time slots in Applicants' invention. The recited "groups of data bytes," as shown in Fig. 2, are clearly not duplicates of the original signal, nor are they the same information.

Further, to achieve diversity, Agee teaches a "stacked-carrier spread spectrum" (SCSS), wherein discrete multiple tones (DMT) having a substantial frequency diversity are simultaneously transmitted by the base station 11 and by each remote unit 12-17 to the other. col. 8, line 64 – col. 9, line 2. This teaching in combination with Eder fails to render obvious Applicants' invention as recited in the claims. Thus, Agee fails to remedy the deficiency of Eder as any proper combination of Eder and Agee would not result in Applicants' invention as recited in the claims.

Accordingly, for the reasons noted above, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1, 2, 4, 6-8, 10 and 11 under 35 U.S.C. § 103(a).

The Examiner rejected claims 3 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Eder in view of Agee as applied to claims 1, 2, 4, 6-8, 10 and 11, and further in view of Propp et al. (U.S. Patent No. 5,944,842). Applicants respectfully traverse.

Without addressing the propriety of the Examiner's rejection of claims 3 and 9, Applicants note that claims 3 and 9 depend indirectly from independent claim 1. For the reasons noted above, Applicants believe claim 1 is allowable over the prior art of record. As such, claims 3 and 9 are likewise allowable in view of the additional features claims 3 and 9

recite in combination with those of claim 1 and their respective intermediate claims.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection under 35 U.S.C. § 103(a).

The Examiner rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Eder in view of Agee, and further in view of Sanderford, Jr. (U.S. Patent No. 5,311,541). In addition to the assertions with respect to Eder and Agee, the Examiner asserted that Sanderford, Jr. teach a spread spectrum transceiver for use in remote power meter reading. Applicants respectfully traverse.

Without addressing the propriety of the Examiner's rejection of claim 12, Applicants note that claim 12 depends from independent claim 1. For the reasons noted above, Applicants believe claim 1 is allowable over the prior art of record. As such, claim 12 is likewise allowable in view of the additional features claim 12 recites in combination with those of claim 1. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection under 35 U.S.C. § 103(a).

The Examiner rejected claims 13 and 15-20 under 35 U.S.C. § 103(a) as being unpatentable over Sanderford, Jr. in view Eder and Agee. The Examiner asserted that Sanderford, Jr. teach a transceiver of a frequency hopping spread spectrum system, but fails to teach (1) an IF amplifier, (2) communicating groups of data bytes that each comprise a subset of a data message over a predetermined sequence of data channels, and (3) a preamble and/or the data message are transmitted a predetermined number of time. The Examiner asserted that Eder remedies (1) and (2) and that Agee remedies (3) and that it would have been obvious to combine the teachings to improve reliability. Applicants respectfully traverse.

DOCKET NO.: ABME-0739
Application No.: 10/037,357
Office Action Dated: March 13, 2003

PATENT

For the reasons noted above with respect to the rejection of claims 1, 2, 4, 6-8, 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Eder in view of Agee, Applicants submit that the combination of Sanderford, Jr., Eder and Agee fails to teach, or even suggest, Applicants' invention as recited in the claims. In particular, there is no teaching or suggestion of communicating the preamble and/or groups of data bytes the each comprise a subset of the data message over a predetermined sequence of data channels in any of the references alone or properly combined. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection under 35 U.S.C. § 103(a).

DOCKET NO.: ABME-0739
Application No.: 10/037,357
Office Action Dated: March 13, 2003

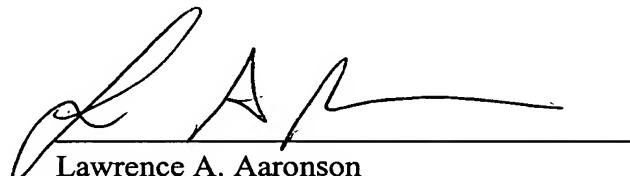
PATENT

CONCLUSION

It is respectfully submitted that each and every claim pending in this application patentably defines over the prior art of record. For all the foregoing reasons, Applicant respectfully submits that the instant application is in condition for allowance.

Reconsideration of the present Office Action and an early Notice of Allowance are respectfully requested.

Date: June 12, 2003



Lawrence A. Aaronson
Registration No. 38,369

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 564-8341
Facsimile: (215) 568-3439